

## **REMARKS**

Upon entry of this reply, claims 18 and 26 will be amended and claim 47-49 will be added, so that claims 18, 21-23, 25-30, 32, 34-45 and 47-49 will be pending. Claims 1-17, 19, 20, 24, 31, 33 and 46 have previously been canceled.

By the amendment herein, claim 18 has been amended as discussed with the examiner during a March 4, 2011 telephone interview to recite “at least one non-isotopic ion”. Claim 26 has been amended to delete a double occurrence of “is”. Claim 47 has been added to recite subject matter as recited in claims 26 and 28. Claims 48 and 49 have been added to separately recite alternatives recited in claim 18.

As discussed with the examiner during the March 4, 2011 telephone interview, support for the amendment to claim 18 appears in Applicants’ originally filed application including the disclosure in Applicants’ specification, at page 4 wherein it is disclosed that:

The documents US 5981283 and US 5474937 disclose the marking of liquids by non-radioactive isotopic compounds. The marker is of similar nature as the product to be marked and can thus be perfectly hidden. Only sub-ppm amounts of markers are furthermore required, i.e. typically parts per billion (ppb). The authentication is performed by modern analytical tools, comprising a gas-chromatography (GC) or electro-spray mass-spectroscopy (MS) separation step, followed by a classical fragmentation-mass-spectroscopy (MS) analysis step. However, even this approach suffers from limitations:

- a) The deliberate addition of isotopically marked compounds into food or beverage products is increasingly less tolerated by regulatory authorities;
- b) the cost of isotopic marking compounds is rather high, although the choice of such compounds is almost limitless;
- c) the authentication, by GC-MS or MS-MS, of ppb amounts of markers is time-consuming and requires expensive laboratory equipment and highly skilled operating personnel, which makes it unsuitable for rapid field audits.

It is an object of the present invention to overcome the shortcoming of the prior art, providing for in-product marking methods and means for branded or taxed bulk goods which are suited for human application.

Accordingly, one having ordinary skill in the art would readily understand by reading Applicants' disclosure that the ions disclosed therein are non-isotopic overcoming shortcomings of isotopic compounds disclosed in the prior art. Accordingly, the amendment should not be considered to introduce new matter.

Reconsideration and allowance of the application are respectfully requested.

#### **Statement of Interview**

Applicants express appreciation for the courtesies extended by Examiner Lyle Alexander to Applicants' representative Arnold Turk during a March 4, 2011 telephone interview.

During the interview, Applicants' disclosed and claimed subject matter was discussed and Applicants' representative contrasted Applicants' disclosed and claimed subject matter with the prior art used in the rejections of record. Moreover, the indefiniteness rejections set forth in the Office Action were discussed.

With respect to the terminology "standard sea water", the Examiner's attention was directed to Applicants' specification, beginning at the bottom of page 6, wherein it is disclosed that in the context of the present invention standard sea water is defined as having the average compositional values listed in Table 1 of the specification. The examiner appeared to agree that Applicants' can be their own lexicographer and can define the terminology present in their

claims. It appeared that the examiner would consider withdrawal of the indefiniteness rejection based upon further consideration and review of Applicants' specification.

Regarding the at least one ion being non-toxic to human or animal, the Examiner's attention was directed to page 6 of Applicants' specification wherein it is seen that the at least one ion can be non-toxic and/or present in non-toxic amounts.

Arguments were presented that amounts with respect to an initial concentration were clear to one having ordinary skill in the art, and the examiner agreed to withdraw this ground of rejection.

Regarding the art based rejections, Applicants' representative pointed out that U.S. Patent No. 5,942,444 to Rittenburg discloses that his marker is not already associated with the product. Moreover, Applicants' arguments previously set forth with respect to U.S. Patent No. 5,849,590 to Anderson were emphasized. The examiner indicated that the arguments appeared to be persuasive and would be considered upon presentation of Applicants' written response.

### **Information Disclosure Statements**

Applicants express appreciation for the inclusion with the Office Action of initialed copies of the Information Disclosure Statement forms submitted with the Information Disclosure Statement filed February 19, 2010 and the Second Supplemental Information Disclosure Statement filed August 3, 2010.

Applicants note that the Examiner has crossed through the Written Opinion of the International Preliminary Examining Authority dated October 12, 2005 with the assertion that a copy

has not been provided. While a copy was previously submitted, Applicants are resubmitting a copy of the document and the Examiner is requested to initial the form listing this document that is being submitted with the below-noted Fourth Supplemental Information Disclosure Statement.

Applicants have submitted a Third Supplemental Information Disclosure Statement on December 29, 2010 and are submitting on even date herewith a Fourth Supplemental Information Disclosure Statement. The Examiner is also requested to include an initialed copy of the Information Disclosure Statement form with the next communication from the Patent and Trademark Office so that the Examiner's consideration of these Supplemental Information Disclosure Statements and the documents cited therein will be of record.

#### **Response to Rejection Under 35 U.S.C. 112, Second Paragraph**

In response to the rejection of claims 18, 21-23, 25-30, 32 and 34-45 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, Applicants submit the following.

During the above-noted interview, the Examiner indicated that the rejection regarding the marker concentration would be withdrawn and it was not necessary to submit a written response thereto. In particular, the Examiner indicated that claim 18 may not have been read incorrectly when preparing the Final Office Action. In this regard and as noted above, the claims have been amended in accordance with suggestions made during the interview to even more explicitly recite Applicants' claimed subject matter.

With regard to the terminology "standard sea water", it was pointed out during the above-

noted interview that “standard sea water” is defined in the originally filed application at pages 6-9. The Examiner appeared to agree that Applicants can be their own lexicographer, such as discussed in the MPEP, Eight Edition, Rev. 6, Sept. 2007, in Section 2111.01, IV. **APPLICANT MAY BE OWN LEXICOGRAPHER**, at page 2100-141 Rev. 6, Sept. 2007. Accordingly, the Examiner is requested to reconsider and withdrawn this ground of rejection.

With regard to the at least one ion being non-toxic to human or animal, as noted above the Examiner’s attention was directed to page 6 of Applicants’ specification wherein it is seen that the at least one ion can be non-toxic and/or present in non-toxic amounts.

Accordingly, the rejection under 35 U.S.C. 112, second paragraph, should be withdrawn.

### **Response To Art Based Rejections**

(a) Claims 18, 21-23, 25-30, 32, 36 and 37 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,942,444 to Rittenburg et al. (hereinafter “Rittenburg”).

In response, Applicants submit that Rittenburg does not disclose each and every feature recited in Applicants’ claims so that the anticipation rejection is without appropriate basis and should be withdrawn.

For example, Rittenburg discloses that in the first paragraph following the Summary of the Invention, that, “The marker is non-deleterious to the product and not already associated with the product.” Similar language appears in independent claims 1 and 9 of Rittenburg. In contrast, Applicants’ independent claim 18 recites includes, amongst other features recited therein, identifying at least one non-isotopic ion selected from ions contained in standard seawater in said

material present at an initial concentration level of below 50 ppm, said at least one ion being non-toxic with respect to human or animal use; and incorporating a marking composition comprising said at least one ion that is non-toxic with respect to human or animal use into the material to form a marked material including said at least one ion in the marked material at an increased concentration by at least a factor of 3 as compared to the initial concentration level.

Accordingly, the anticipation rejection is without appropriate basis and should be withdrawn.

(b) Claims 18, 21-23, 25-30, 32 and 34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,849,590 to Anderson et al. (hereinafter “Anderson”).

In response to this rejection, for the sake of brevity Applicants’ incorporate by reference their arguments set forth in their response filed August 3, 2010 as if set forth in their entirety while emphasizing certain arguments herein based upon the amendment to claim 18. Thus, discussed with the Examiner during the above-noted interview, Applicants’ independent claim 18 is directed to a method for marking a material, wherein said material is an alcoholic beverage or a perfume, the method comprising:

identifying at least one non-isotopic ion selected from ions contained in standard seawater in said material present at an initial concentration level of below 50 ppm, said at least one ion being non-toxic with respect to human or animal use;

incorporating a marking composition comprising said at least one ion that is non-toxic with respect to human or animal use into the material to form a marked material including said at least one ion in the marked material at an increased concentration by at least a factor of 3 as

compared to the initial concentration level.

In contrast to Applicants' claimed subject matter, Anderson does not teach or suggest (a) at least a material which is an alcoholic beverage or a perfume; (b) does not teach or suggest the marking composition including the at least one non-isotopic ion which is non-toxic with respect to human or animal use; and (c) does not teach or suggest incorporating at least one ion which is non-toxic in a marking composition that is added to the alcoholic beverage or perfume let alone in the concentration recited in Applicants' independent claim 18.

As Applicants previously noted, as set forth in the Detailed Description of the Invention section of Anderson beginning at the bottom of column 3, Anderson is directed to a method for identifying the source of a transported chemical shipment. Anderson discloses that the method employs a non-radioactive chemical isotope which, with the material being transported, is introduced into the storage container prior to the container being loaded onto a freight vessel, and that either non-radioactive chemical elements or non-radioactive inorganic or organic compounds may be employed. Anderson discloses that his invention finds particular applicability for marking chemical samples, and that marking of the sample permits the recipient of the cargoed product to verify that the sample received is identical to the sample that was shipped with the shipment being checked for the presence of the isotopic compound and matching the isotopic compound with the isotopic compound introduced into the storage vessel prior to shipment which is indicative that the shipped chemical is identical to the chemical received. Anderson discloses that his invention has applicability in the shipment of any chemical commodity, regardless of method of shipping or chemical structure of the commodity, but specifically

discloses that the method has particular applicability in the shipment of crude oil, refined oil, grains, processed and unprocessed chemicals as well as with bulk refined products. Moreover, Anderson discloses that his invention may be employed in the shipment of a pollutant, hazardous material or a toxic material. Anderson discloses that, as such, his invention has particular applicability in the identification of spilled shipments of spilled oil, pesticides, cyanide based compounds, arsenic containing compounds, dioxin, military chemical agents, military biological agents, naphthalene and biphenols.

As to the chemical substance for tagging, Anderson discloses that the chemical substance may be a non-radioactive isotope of the chemical shipment being transported, and that any element or compound which can be produced with stable isotopes not generally found in nature is suitable for the chemical substance. The substance is labeled with a non-radioactive atom at least one specific site in the molecule. Particularly preferred by Anderson are those compounds deuterated or rendered isotopic by carbon-13 or fluorine-19. Also preferred are nitrogen-15, oxygen-17 and oxygen-18 isotopic materials.

Anderson specifically discloses that the chemical substance is more commonly a non-radioactive isotope of such organic solvents as acetone, acetonitrile, benzene, bromobenzene, chlorobenzene, chloroform, cyclohexane, dichlorobenzene, trichloroethylene, diethylether, diglyme, dimethylsulfoxide, dioxane, ethanol, methanol, methylene chloride, nitrobenzene, octane, pyridine, tetrachloroethane, tetrahydrofuran, tetramethoxsilane, toluene, trifluoroacetic acid, trifluoroethyl alcohol, xylene, ammonium bromide, or acetyl chloride. Moreover, Anderson discloses that common inorganic deuterated solvents include deuterium oxide, ammonium

deuteroxide, and deuterated ammonium sulfate. In addition, the non-radioactive isotope may be derived from an organometallic material. Isotopes of organometallic and inorganic compounds may include those containing iron-57, europium-151, and tin-119.

Therefore, for at least the reasons set forth above, the rejection based upon Anderson is without sufficient basis and should be withdrawn.

Still further, all of the Examples of Anderson are also directed to crude oil with Example 1 including deuterated octane, Example 2 including deuterated acetone, and Example 3 including tetrafluorethylene, chloroform and trichloroethylene in a ratio of 1:3:7. **The rejection does not establish that one having ordinary skill in the art would have identified any tagging agents disclosed in Anderson in an alcoholic beverage or perfume.** Still further, the rejection does not provide any teaching or suggestion for incorporating a marking composition comprising the at least one non-isotopic ion that is non-toxic with respect to human or animal use into the material to form a marked material including said at least one ion in the marked material at an increased concentration by at least a factor of 3 as compared to the initial concentration level.

The rejection admits that Anderson is silent to tagging alcoholic beverages and perfumes, but contends that it would have been obvious to one having ordinary skill in the art. In contrast to this assertion, **Applicants again note that the rejection does not include any documentary evidence with respect to any type of tagging of either alcoholic beverages or perfumes.** Applicants respectfully submit that an obviousness rejection cannot be supported by mere allegations that it would have been obvious to arrive at Applicants' invention. The Examiner is

reminded that a rejection must be based upon documentary evidence, and not merely official notice. In this regard, the Examiner's attention is directed to MPEP 2144.03 wherein it is noted that, "If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position". In the instant situation, Applicants respectfully submit that the rejection is improper as not utilizing documentary evidence to support the position taken in the rejection. The rejection merely makes an assertion of obviousness, but does not support this assertion by documentary evidence. There is not the slightest documentary evidence to arrive at Applicants' disclosed and claimed invention.

Thus, in the event that the rejection is maintained, Applicants once again request that the rejection be modified to include documentary evidence supporting the position taken in the rejection.

Moreover, attention is directed to In re Ahlert and Kruger, 424 F.2d 1088, 165 USPQ 418, 420-421 (CCPA 1970), which is cited in MPEP 2144.03. In Ahlert, at 165 USPQ 421, it is stated that:

Typically, it is found necessary to take notice of facts which may be used to supplement or clarify the teaching of a reference disclosure, perhaps to justify or explain a particular inference to be drawn from the reference teaching. The facts so noticed serve to "fill in the gaps" which might exist in the evidentiary showing made by the examiner to support a particular ground of rejection. We know of no case in which facts judicially noticed comprised the principal evidence upon which a rejection was based or were of such importance as to constitute a new ground of rejection when combined with the other evidence previously used.

In the instant case, the rejection improperly utilizes assertions of obviousness, which can at best be characterized to be considered Official Notice, not to "fill in the gaps", but to provide a complete reasoning behind modification of the primary reference. Accordingly, Applicants submit that it is improper to make such naked assertion in the instant case, and a reference must

be utilized in the rejection that not only discloses Applicants' recited concept, but also provides motivation for modifying Anderson to include Applicants' recited features. This would afford Applicants an opportunity to address issues of lack of motivation for combining separate disclosures as well as an opportunity to argue against any asserted combination.

Moreover, the rejection contends that the incorporating a marking composition comprising said at least one ion at an increased concentration by at least a factor of 3 as compared to the initial concentration level is a mere matter of optimization in Anderson. However, the rejection does not address why such matter is a mere optimization when Anderson specifically discloses at column 7, lines 64-66, the desirability of eliminating the need for quantitatively analyzing for the tagging agent and greatly simplifies the invention.

Applicants again submit that the rejection does not establish that Anderson discloses other than product tracking or liability for environmental wrongdoing. The rejection does not properly use any other documentary evidence in the rejection to establish that the process of Anderson can be modified to arrive at the subject matter recited in Applicants' claims. Therefore, the rejection should be withdrawn, and if maintained be modified with appropriate documentary evidence in the rejection to support the Examiner's position.

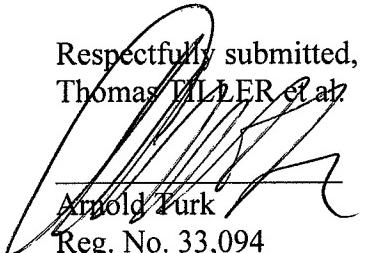
Accordingly, for at least the reasons set forth above, the rejection should be withdrawn.

Still further, the dependent claims are patentable for the reasons set forth above as well as for the combination of features recited in the dependent claims.

Therefore, the rejections of record should be withdrawn for each of the pending claims, and each of the pending claims indicated to be allowable over the prior art of record.

### CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance. Accordingly, an early issuance of the Notices of Allowance or Allowability is again respectfully solicited. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,  
Thomas MILLER et al.  
  
Arnold Turk  
Reg. No. 33,094

GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191